

U. S. DEPARTMENT OF AGRICULTURE  
BUREAU OF BIOLOGICAL SURVEY

Form Bi-689

FIELD DIARY

Mr. *Vernon Bailey*

*Washington D.C.*  
(Official title.)

Period, *Oct 1, 1929* to \_\_\_\_\_

*Pennsylvania and Kentucky*  
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Notes for home + field

1929 & 1930.

Verron Bailey  
1834 Kalarawa Road.

October 1, 1929

Arrived in Washington at 3:45 PM on C & O from Frankfort Kentucky after a summer at the Gravel Camp and trip to California & return via Oklahoma City and Mammoth Cave, Ky.

In crossing the mountains by White Sulphur Springs the colors of forest trees were brilliant, but there was scarcely a trace of autumn color in the low country east or west of the mountains.

The climate at Mammoth Cave and at Washington seems to be about the same. No frost and mild weather up to Oct. 2, then a little colder and frosty nights soon after.

Oct. 13, Several frosty  
nights have colored up  
the trees beautifully around  
Washington and the woods are  
at their most brilliant period.

Oct. 17 - Gave talk on horned  
toads and chuckwallas  
at the meeting of the Vivarium  
Society meeting in room  
43 at National Museum

Oct. 14 - Attended conference on  
boundaries of Grand Canyon  
National Park at Major Stuart's  
office in Forest Service Bld.  
with Dr. Bell and J. C. Merriam.

Oct. 21 Heard lecture at Cosmos Club by  
Dr. J. C. Merriam on The Inspirational  
Value of great Scenery. Very Good.

Oct. 22 Went to meeting of A. S. N.  
at Philadelphia, stopping at  
Benjamin Franklin hotel and attending  
meetings for 3 days at Phil. Acad.  
Nat. Sci.

Florence was elected a Fellow  
of the Union, the first woman to be  
made a fellow as she was the first  
woman member of the Union in its  
early days.

Oct. 25 - Returned to Washington  
8 PM, with bad cold.

Oct. 28, Roosevelt recommendations  
for enlarging boundaries of Grand  
Canyon National Park to give  
standing room for more wild  
life on both north and south  
sides of Grand Canyon and  
inside of park boundaries.



Nov. 5 Packed up for trip to  
northern Pennsylvania to study  
fur forage conditions

Wrote H. D. Ruhl of The Conservation  
Department at Lansing, Mich. &  
objections of opening trapping  
season on beavers next spring.

Left Washington for Harrisburg  
at 6:30 P.M. Arrived 9:50 P.M.

Cold and clear with promise  
of a sharp frost before morning.  
Leaves mostly gone from trees.

Went to Penn Harris Hotel  
The best in Harrisburg where  
a double room with 2 beds and  
a bath cost us \$7.00 for two.  
Dr. W. B. Bell is with me.

Dr. D. Rearick, Anderson Creek, Pa.  
Leroy P. Jefferson, Midix Run.  
Davis,

Nov. 6. Went over to Game  
Department and saw J. F. Slautterback,  
Leo Luttinger, Dr. Winneoff,  
and

Dr. W. D. March arrived at  
11:15 AM and we started  
as soon as he arrived  
for State College, Chaffield  
and Game Refuge No. 2 at  
Mr. L. D. Rearick's place.  
Stopped at State College  
where Dr. Forbes in  
charge of Nutrition is planning to  
feed the young deer Laurel and  
Rhododendron to test poison  
qualities. He has 13 beautiful  
healthy fawns, gentle and tame  
ready for the experiment.

We talked over methods and  
all angles of the test and  
deer management in general.

Got supper at Chaffield  
and reached Rearick's at 8 P.M.

Nov. 7. Drove over to  
Game refuge No. 24 on  
Marquette Creek and explored  
over that country till after  
noon. This is a high  
plateau country, once a  
wonderful forest of white pine  
and hemlock but all cut out  
burned over until very open  
but with much grass, aspen  
and good young growth for  
deer and elk and grouse  
and beaver and ducks.

Several big beaver ponds  
are full of fine trout as  
well as beavers.

Stony Jefferson, Refuge  
keeper is trapping and got  
2 red foxes and a raccoon  
today and four skunks  
yesterday and has a possum  
and 4 raccoons alive in cages.  
Also a live great horned owl.



Came back to No. 2 at  
night around by Maddix  
Run and Crystal Springs  
Camp. In all 55 miles  
today.

Counted 107 deer, of  
which only two were bucks  
with visible horns.

They were mostly does with  
two fawns each.

The hunting season opens  
Dec. 2 for bucks only  
and will not greatly reduce  
the very large number of  
deer. The Blountsbrakes  
expects a kill of 20,000.

The summer has been  
very dry and plant growth  
has been slight. There are  
no acorns or nuts or berries  
and the deer are in great  
danger if a severe winter follows  
the dry summer.

Dr. Merriam has this all  
written up in his manuscript -

### Grizzly Bear Attacks

J.T. Slaughterback tells me of a  
bear attacking Dr. Penrose, Pres. of  
the Pa. Game Com. on a hunting trip  
in the Rocky Mts. about 1917.

The Dr. went out from camp alone  
to look for bear and saw a young  
silvertip near him and shot it &  
wounded it so it began to cry.

In a minute the mother appeared and  
came at him. He shot several times,  
only wounding her and as she came  
close he climbed onto a rock, but  
she followed and caught him and  
got hold of his head but both  
fell and rolled down off the rock.  
The Dr.'s legs were broken in two places  
in the fall and his gun was  
knocked out of his hands.

At the bottom the old bear got up and  
struck him a couple of times and  
started for the cliffs. He grabbed  
his gun and she returned and

called him again, then went on to the cubs. Getting his gun ready he shot and killed her and then killed the other cub, so he got them all.

Then crawled to camp and was taken to a hospital and got well.

Slaughterback saw him while still lame the following summer but says he did not like to talk about the incident.

The important thing is that the old bear deliberately attacked him when the cub was hurt.

Nov. 5. Explored around the Game Refuge No. 2 and Forest Nursery and on the head of Stony Creek, then drove over to Game Refuge No. 1 in Carter Co. and from there to Look Haven where we staid all night.

Saw few deer but judged the best deer range where food is scarce for the winter and many deer will starve if there is deep snow and long cold weather. Saw 7 deer, 39 thumb tracks.

Saw lots of ruffed grouse along the way but there are no berries or good winter food. The grouse will live on buds and catkins and may come through all right. There is no shooting this fall.



Nov. 9 Drove from Lock Haven  
to Mifflinburg and then over to  
Refuge No. 23 on Penn Creek  
and tramped over the country  
there. Found signs of turkey,  
deer and squirrels and this is  
a good bear country. Eight  
bears have been killed here since  
the first of the month and more  
will be killed.

Saw some grouse but  
there are no acorns or nuts  
or berries and deer food  
is also scarce.

Returned by the Woodcock  
Cave and got bats near it.  
*Eptesicus*, *Pipistrellus* and two species  
of *Myotis*. Probably 25 bats  
seen all told, perfectly torpid.

Temperature of Cave 45°;  
said to be 46° all summer.

Air damp and bats very wet.

Returned to Harrisburg 8:30 P.M.



Nov. 10, Returned to Washington  
at 11:55 AM and packed up  
for next trip to Warm Springs  
Virginia and Mammoth Cave  
Kentucky.  
Clear and cold.

Nov. 11. Started at 8 AM  
with Silver in his Dodge car  
for Warm Springs, Va., to see  
the lynx trapper employed there  
to protect the deer. Drove  
through Falls Church, Luray,  
Harrisonburg to Warm Springs  
210 miles over mostly good  
roads. Arrived at 5:30.

A warm day and very  
pleasant trip. The leaves  
are all off the trees except those  
that stay on all winter, but  
the oaks and pines make a  
pleasing picture.

Stopped at Luray Caves  
but was told that there were no  
bats in it so did not go in.  
The same at Blue Grottoes,  
tho at both places they told  
us there were bats in some  
of the little known caves.

Went into Blowing Cave  
in windy gulch but found  
no bats. There was not much  
wind coming out now as the  
temperature is about the same  
inside and out.

Stopped at Warm Spring.  
Saw John Sr. Bell & I  
stopped at Spring.

Nov. 12, Went with Cheney  
to his cat traps along the top  
of Warm Springs Mountain ridge  
north of Warm Springs.

Caught nothing but saw  
where he had caught 4  
bobcats, some gray foxes  
coon, skunk, Spilogale and  
turkey buzzards.

Left traps on top of  
ridge off two places, the  
farthest north at Bear  
Rocks.

In P.M. went to traps  
where he caught one ~~dead~~  
bobcat at deer carcass on  
Game Sanctuary and found  
a young possum in it.

In evening went to meeting  
of local county game protection  
Association in Court House.  
Saw Haite and See. The two  
wardens we went with last spring.

Talked to them on game management in Pennsylvania and on the needs of Virginia in game conservation and management.

Had a small attendance but considerably interest was shown and many questions asked.

Our trapper, Cheney, has caught 6 bobcats, 10 gray foxes, some coon & possum and skunkles and two spelogale. Has out four trap lines and goes to one line each day.

Had to take up his traps because the 4 day hunting season for deer begins tomorrow or next day and the hunters do not want any traps out.



Nov. 1904. Went with Cheney  
to another trap line on Warm  
Spring Ridge, south of Warm Springs  
and took up the line of 15 traps  
caught only one little coon  
but saw where he had caught  
a number of foxes and other things.  
The little coon had water acorns  
in its stomach from the little  
orange leaved acorn of the  
turkey oak, the only acorns  
found in any abundance this  
year. They grow on bushes 2 to  
4 feet high on top of the ridge  
and were mainly loaded with  
nuts. I picked two perfect  
full to send to Pennsylvania.  
Left Clifton Forge at 9 P.M.  
for Fournills & Cave City, Ky.

Nov. 14 woke up in the  
low country of West Virginia,  
raining and foggy so I could  
not see much.

Reached Louisville at  
10:55 AM, transferred  
to L & N depo and waited  
till 1 PM for train to  
Cave City. Arrived at  
4:30 P.M.

Warm and cloudy.

Nov. 15, at Cave City, Ky.

Got Dick Noel and drove to Long Cave for bats. Found them abundant on the roof of the regular bat room at left of main tunnel where a few were found in April and September. Probably 1000 hanging on roof of this room and in bunches and long rows along the creases on the ceiling. Little nubby calcite formations along the creases afford perfect footing for the bats to cling to but often the hook their toenails into the edge of a crack in the limestone. Some were in clusters or rows and others singly or in twos or threes. In places the ceiling was low so I could pick them off with my hands or set up the camera close enough for a flashlight.

Apparently all were Myotis  
lucifugus except a dozen or  
two dozen Pipistrellus subflavus.

Farther back along the  
main tunnel of the cave  
they were hanging to the high  
ceiling in about the same  
abundance nearly to the first  
deep hole where the ladders  
go down and then up the  
other side, & nearly half  
a mile back from the entrance.  
Here were fully another thousand  
and probably more, making  
2000 or 3000 in the cave  
against a few dozen in Sept.

The temperature of the cave  
was 54 in both rooms and  
humidity at the saturation point.  
Most of the bats were cold and torpid  
and some were silvered all over  
with dew from condensed moisture.



After using a powerful  
flashlight on them <sup>the myotis</sup> and talking  
near them some began to  
move about and a few to fly.  
In fact a few were seen flying  
when we first went in.

Others were perfectly torpid  
but when the light was held on  
them they soon began to vibrate  
more or more rapidly until  
they became limber enough to  
stretch a wing or leg and finally  
to fly. Others were not affected  
by light. in the short time I  
could watch them and remained  
cold and motionless through my  
visit of an hour and two  
flashlight photographs.

The Pipistrellus subflavus  
were absolutely torpid and  
dead to the world but when  
put in the bag with Motis  
soon warmed up and were very active.

The pipistrellus all hung singly and were mostly in the back end of the left hand bat room beyond the Myotis. No difference of moisture or temperature could be noticed in this corner nor any reason for this choice of roost be seen unless they went in first and got furthest back. They were silent whilst many of the myotis were squeaking and making fitty noises all the time apparently those in the bunches were trying to get fixed so they would be comfortable and not too crowded.

In the long cave tunnel I fired an air gun into a bunch on the roof high overhead to see if they were the

same and brought down 14, 7 males and 7 females at one shot, showing that the sexes roost together in close bunches.

Another shot into a bunch on the roof of Dixon cave brought down a male and two females of Myotis lucifugus and three males of Myotis velox. but these two species are so much alike they could easily mistake their company. I can not detect any difference in odor nor any very perceptible odor to either.

All were fat, long furred and in prime condition for winter hibernation.

Those released from my bags at Cave City flew away through the bare tree tops and probably returned to the same caves.

Then went to Old Mammoth Cave but was told by Roy Hunt that there were no bats in it so I did not go in.

Went to Dixon Cave, a quarter of a mile from Old Mammoth Entrance and found a good many bats hanging to the roof all the way back to the end, less than a quarter of a mile. Estimated at least 1000 bats in the cave, but all high up on the roof.

Fired into one bunch and brought down three Myotis lucifugus and three Myotis localis - and in another bunch brought down only one lucifugus. Could not recognize any species on the ceiling but presume these two predominate as they did last Sept. here.



Near the back end of the  
Cave a bunch of probably  
50 in a circular mass were  
not torpid but constantly  
moving and squeaking and  
when a powerful flash light  
was thrown on them many  
flew and a shot at the few  
remaining brought down only  
one, a Myotis subulatus and the  
rest all flew away.

The temperature here was  
 $54^{\circ} F$ . and humidity about  $100^{\circ}$ .  
Others were heard squeaking  
on the roof and many dense  
clusters probably kept the  
inside individuals too warm.

Very little guano could be  
found under the bats where  
most densely gathered, as  
they soon eject the food they  
contain and get no more until they  
leave in spring.



Nov. 16 Saturday at  
Cave City -

Went to Colossal Cavern  
where bats are more numerous  
than any other cave I have seen  
in this region. They extend  
back half a mile and into several  
side rooms and probably total  
5000 or more. I counted 85  
in one little bunch and a dozen  
such bunches were in sight  
besides long lines and little bunches  
and single bats.

They are mostly Myotis lucifugus  
and sadalis in about equal  
numbers with a few hundred  
scattered single Pipistrellus subflavus.

No difference in choice of location  
could be seen although in some  
rooms sadalis predominates and  
in others lucifugus and sometimes

both kind in the same bunch.

In many places they were only partially torpid and not very cold. Those in dense rowel bunches were most active generally and more in motion. A few flew when we came close of the flash light and many vibrated rapidly when the light was held on them for a minute. Others and especially the single bats were often so torpid they made no response to light or being handled.

The *Pipistrellus* were most soundly asleep and most often covered with a dense coat of silvery dew. The thermometer with the bulb pressed against them went down to  $50^{\circ}$  but on the bodies of those in clusters

registered  $52^{\circ}$  while the air gave a temperature of  $54^{\circ} 7$ . In summer the cave is said to be  $56^{\circ}$ .

The humidity must be about  $100^{\circ}$  tho the gravel and stones generally seem dry.

There are some springs and many dripping places and some streams farther down so there is plenty of moisture. In places there is condensed water on the ceiling.

Bats fully torpid have the eyes and mouths closed and ears erect and the bodies cold and almost rigid, the wings folded close against the sides and tails curled over the rump between the hind feet. When caught and held in the hand they exude a drop

Found the skeleton of an  
Eptesicus fuscus in a side  
tunnel not far beyond the first  
spring. It had been dead about  
a year and was nearly gone to pieces

of urine but do not have  
any pellets to deposit.

All are fat and in good fur.

A few of the bats hang on side  
walls quite low down but most  
are on the roofs overhead  
but often within reach of the hand.

Most of the bats were beyond  
any possible trace of light,  
as the outlet is up a narrow  
stairway and the light does  
not penetrate into the first  
room of the cave.

There is another entrance  
to the cave about 3 miles  
away but it is not used  
and the bridge leading to it  
has fallen inside so I do  
not really know how far the  
bats do go. but they were  
as far back as when I went,  
about half a mile.



Birds  
Colossal Caverns, Nov. 14.

Rained all day but there were  
lots of birds in the woods in  
sheltered places, saw lots of  
Juncos abu.  
Tree sparrows com.  
Fox sparrows 1  
White throats ? apparently common  
Purple finches com.  
Chewinks 1  
Chickadees a few  
Tufted Tit "  
Meadowlarks, a flock in field  
Tlickers 1  
Pileated woodpecker 1 heard  
Robins com.  
Bluebirds "

Wild turkey, Dick Threl says he  
knows of their being here not over  
15 years ago and the keeper at Colossal  
Cave says they were there only  
5 years ago.

The boys at Colossal Cove  
have skins of 2 gray foxes,  
one raccoon, 2 skunkies,  
about 20 sparrows and one  
fox squirrel.

A few red foxes are said to be  
here and a few bobcats.

One deer was seen two  
or three years ago.

Birds at Mammoth Cave, Nov. 17

Turkey buzzards	Com
Mourning Doves	"
Pileated Woodpecker	heard
Hairy "	1
Sawny "	1
Red head	3
Flicker	Com.
Nuthatch	"
Cedar birds	6
Hummer	1
Chewink	1
White-eyed vireo	1
Oat bird	1
Robin	com

Nov. 17 Left Cave City  
Kentucky 9:30 AM

Cloudy & foggy  
Crows - heard  
Grackles, flock of 200 in yards  
and pig pen  
Song sparrows heard  
Carolina wrens singing  
Mocking birds "

Toward Elizabethtown

1 Sparrow Hawk

Byroad Elizabethtown

2 Dabchicks in pond by Ry.

1 Marsh Hawk over field.

Louisville, Ky. 11 AM

North Vernon, Ind. 3 PM

Cincinnati, Oh. 5 PM

Arrived at Man. H. Carr Nov 17

Nov. 18

Arrived at Washington D.C.  
9:30 A.M. with lots of  
live bats from The Caves

Nov. 19, Weighed and carded  
my bats and put in numbered  
cages in boxes for  
hibernation - 4 species  
Myotis, Incisugus sadleri,  
Albis septentrionalis  
and Pipistrellus subflavus.





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Washington, D. C.

Bureau of Biological Survey.

Myotis sadalis, Dixon Cave, Nov. 15.

1. ♂	85	33	9	12	grams
2. ♂	85	34	9	12	
3. ♂	87	36	9	13	

Myotis lucifugus

4. ♂	89	36	8	13	
5. ♀	86	36	9	12	
6. ♀	88	37	9	12	

Nov 15

Long Cave.

Myotis lucifugus

7. ♀	90	38	9	13	
8. ♂	83	33	8	12	
9. ♂	85	33	9	12	

Nov 15





